



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/633,061	08/01/2003	Mehul Patel	1400-11 (1508)	3603
7590 03/23/2005			EXAMINER	
George Likourezos. Esq. Carter, DeLuca, Farrell & Schmidt, LLP Suite 225 445 Broad Hollow Road Melville, NY 11747			WALSH, DANIEL I	
			ART UNIT	PAPER NUMBER
			2876	
DATE MAILED: 03/23/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/633,061

Applicant(s)

PATEL ET AL.

Examiner

Daniel I. Walsh

Art Unit

2876

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>8-03, 1-04</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

1. Receipt is acknowledged of the IDS of 1 August 2003 and 28 January 2004.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

2. Claims 1-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Feng (US 20010003346) in view of Gardiner et al. (US 20030062413).

Re claim 1, Feng teaches an imaging assembly (42) including at least one image sensor (48), at least one illuminating assembly (42) including at least one image-illuminating device (60). Feng teaches an interface having at least one signal path configured for providing at least one control signal, through the control and decoder board 22 to which the imaging engine is

coupled to. Re claim 2, the limitations have been discussed above re claim 1. Re claim 3, as the components are coupled, it is understood that the path is an electrical one. Re claim 4, the imaging engine is interpreted as an integrated package, as it contains circuit boards and integrated components (FIG. 8). Re claim 5, FIG. 8 shows the sensor in an optical beam path (to receive light). Re claim 6, FIG. 8 shows a transmissive optical element overlaying the substrate. Re claim 10, the illumination device is a LED (abstract). Re claim 11, Feng teaches a targeting assembly (abstract). It is interpreted by the Examiner that a control signal is applied to the targeting assembly, as is well known in the art of reader circuitry, to activate the targeting means, for example.

Re claim 1, Though Feng teaches the image sensor and illuminating devices are provided on substrates (FIG. 9), Feng is silent to teaching them being provided on a substrate (same substrate). Re claim 8, Feng is silent to the illuminating device including light emitting diodes of different wavelengths.

Re claim 1, Gardiner et al. teaches the image sensor and illuminating device being provided on the substrate (FIG. 2e). Re claim 7, as the substrate is a circuit board, it is interpreted to include a semiconductor (such as silicon, which is conventional in the art for such boards, due to their low cost and high reliability and predictability). Re claim 8, Gardiner et al. teaches different wavelength illuminating devices (paragraph [0183], claim 1), in order to optimize the reading/scanning process (via appropriate color/wavelength reading), as is well known and conventional in the art. Re claim 9, Gardiner et al. teaches portions for the image sensor and illumination assembly (means) on the substrate (FIG. 2E). They are interpreted as substantially flush, as they are mounted directly onto the substrate.

At the time the invention was made, it would have been obvious to an artisan of ordinary skill in the art to combine the teachings of Feng with those of Gardiner et al.

One would have been motivated to do this in order to reduce size. Re claims 7 and 8, one would have been motivated to use a low cost and common semiconductor for the circuit board, while using different colored illuminating devices in order to optimize the reading/scanning process (via appropriate color/wavelength reading), as is well known and conventional in the art.

Re claim 12, the limitations have been discussed above re claim 1. As the engine is within the reader, it is interpreted as having a structure for connecting to it.

Re claim 13, the limitations have been discussed above re claim 8.

Re claim 14, the limitations have been discussed above re claim 6.

Re claim 15, the limitations have been discussed above re claim 4.

Re claim 16, the limitations have been discussed above. It is understood that the image sensor and targeting assembly communicate with the optical reader circuitry in order to target an area and to decode readings, respectively.

Re claim 17, as Feng teaches a modular portion 20, it is well within the skill in the art that modular portions can be moved and replaced. One would have been motivated to interchange a modular (imaging unit) in case of replacement, for example.

Re claim 18, the limitations have been discussed above re claim 1. Through normal use, a user aims the optical code reader at the code, Feng teaches light is reflected back through the device (FIG. 9) where the light upon a sensor is captured and read (FIG. 35 for example). Such limitations are well known for bar code readers.

Re claim 19, the Examiner notes that it is obvious that a control signal (upon actuating of a button) actuates the illuminating device (switch 26 of Feng for example).

Re claim 20, the limitations have been discussed above re claim 4.

Re claim 21, the limitations have been discussed above, re claim 1. Though Feng teaches a modular portion 20, Feng is silent to two plug and play components for alternative placement within the code reader. However, the Examiner notes (as discussed above) that as the devices are modular, it is well within the skill in the art for such devices to be removed and replaced (due to damage, errors, etc.). As modular, it is understood that the portions have interfaces to communicate with the optical code reader, as it's coupled to control and decoder board 22.

Re claim 22, the limitations have been discussed above, where the portions have an illuminating device. It would be obvious that when replacing a portion, that the replacement portion would have an illuminating for illumination.

Re claims 23-27, the limitations have been discussed above. The Examiner notes that as a modular portion, it is well within the art that such a unit can be removed and replaced with another modular unit, in cases where the unit is not working, damaged, needs to be replaced, etc. As the portion 20 has an illuminating device, and transparent overlay, it would be obvious that the replacement portion would contain the same elements (re claims 24-26). Re claim 27, the limitations have been discussed above, re claim 8.

Re claim 28, the limitations have been discussed above re claim 9.

Re claim 29, the limitations have been discussed above re claim 23.

Re claim 30, the limitations have been discussed above re claim 1.

Conclusion

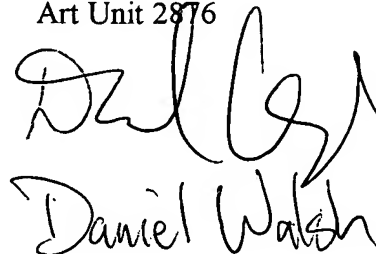
3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Knowles (US 4,983,818), Hone et al. (US 5,663,551), Correa et al. (US 6,340,114), Drzymak et al. (US 6,722,566), Knowles et al. (US 2003/0213846), Havens et al. (US 2004/0020990 and 2004/0164165), Wulff (US 2005/0001037), and Patel et al. (US 2005/0023352).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel I. Walsh whose telephone number is (571) 272-2409. The examiner can normally be reached on M-F 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Lee can be reached on (571) 272-2398. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Daniel I Walsh
Examiner
Art Unit 2876



Daniel Walsh